

# **HOCKING COUNTY HEALTH DEPARTMENT**

**350 St. Rte. 664 N. ~ Logan, Ohio 43138 ~ Phone 740-385-3030 ~ Fax 740-385-2252**

## **FACT SHEET SEPTIC TANKS**

### **What is a Septic Tank?**

A buried watertight tank made of concrete or plastic that accepts wastewater from the home. Its main purpose is to separate out and retain the fats, oils, grease and solids so only the slightly purified wastewater flows out to the leachfield. This wastewater is full of disease-causing organisms and chemicals that are treated by the soil in the leachfield preventing contamination of surface and groundwater.

### **Does My Tank Have 3 Layers of Sewage?**

Yes. When working properly, a septic tank will separate the wastewater into 3 different layers:

1. The top layer is the scum layer made up of fats, oil and grease. This layer will look bubbly or frothy similar to a head of beer.
2. The middle layer is the clear zone and should be the only layer that flows to the leachfield. This is why it is important to make sure the baffles are in place and in good condition.
3. Solids settle on the bottom of the tank into a sludge layer. A properly functioning tank will reduce the solids by 60 – 80% but eventually the indigestible solids must be pumped out.

### **What is the Right Detention Time?**

24 hours. Wastewater should be retained in the septic tank a minimum of 24 hours to allow suspended solids to fall to the bottom and fats, oil and grease to rise to the top. If a tank is too small or too much water is added from the home, the wastewater will flow through the tank carrying the organic matter to the leachfield. This is also why it is important to periodically pump the tank out to remove the accumulated solids. Too many solids on the bottom limit how much wastewater is retained in the tank.

### **Does a Septic Tank Treat Sewage?**

Not really. Septic tanks are not designed for treatment but to separate and retain organic matter. Since there is little oxygen, most of the bacterial activity is anaerobic (without oxygen). Aerobic (oxygen-loving) bacteria are required to treat sewage.

### **How Often Should a Septic Tank Be Pumped Out?**

A good rule of thumb is to pump the tank when it is about 1/3 full of sludge. The following table can be used to estimate when a tank needs pumping:

Tank Size (gallons)	Number of People in Home					
	1	2	3	4	5	6
1000	12	6	4	2.5	2	1.5
1500	19	9	6	4	3	2.5
2000	25	12	8	6	4.5	5
2500	32	15	10	8	6	5
	Estimated Pumping Frequency in Years					

*Information courtesy of OSU Extension AEX-740-98*

### **Do I Need to Fill My Tank Up After Pumping?**

If your tank is located in a wet area or the ground is saturated when it is pumped out, you may want to fill the tank with water till it is at least  $\frac{1}{4}$  -  $\frac{1}{2}$  full so it does not pop out of the ground.

### **Who Can Pump My Tank?**

Only a Septage Hauler registered with the Health Department can pump out your septic tank. These professionals have been trained in proper procedures, safe handling of septage, and are bonded for this service. All trucks used in the business of septage hauling are inspected annually and if septage is land applied, the site must first be approved by the Health Department.

### **What is a Baffle?**

Baffles are located at both ends of the tank to keep everything calm and assist in settling out the solids. The inlet baffle forces the sewage from the home downward. The outlet baffle allows only the clearer liquid to enter the leachfield. Without the baffles, sewage would run straight through the tank short-circuiting its function allowing suspended solids and the scum layer to enter the leachfield.

It is very important to inspect the baffles annually and replace as needed. Four-inch pvc tees can be installed if precast baffles break. Baffles should extend a minimum of 12-18" into the tank and be open at the top extending a minimum of 4-6" above the liquid level of the tank.

### **What is an Outlet Filter?**

All newly installed septic tanks are equipped with outlet filters that filter out suspended solids. If your tank is not equipped with one, it is highly recommended one be added to the outlet end of the septic tank. Please see the Fact Sheet on Outlet Filters for more information.

### **Why Do Concrete Tanks Corode?**

Corrosion of concrete tanks is due to improper curing at the factory or hydrogen sulfide gas inside the tank. Gas buildup is due to improper venting, household chemicals, and heavy usage of the garbage disposal.

### **What Should Never be Added to a Septic Tank?**

Anything that will upset the natural balance of the tank or that could end up in our drinking water. This includes harsh or toxic chemicals, excessive use of cleaners and bleach, and too much water or organic matter. Space out laundry loads, repair leaky fixtures, and limit the use of the garbage disposal. Bottom line; do not use your septic tank as a garbage can!

### **How About Additives?**

Some companies claim their additives help keep a septic system healthy or the tank will never need pumping. Many industry authorities are skeptical because none have proven to improve long-term performance and some are even known to be harmful to the system and the environment. Bottom line; save your money and don't use additives.

### **Or Water Conditioner Discharge?**

There is a lot of controversy whether the water conditioner discharge helps or damages a septic tank. Until more research is conducted, it is recommended to pipe the discharge somewhere else or bypass the septic tank and discharge directly to the leachfield.

### **What Smells?**

Bacteria in the tank feed on the solids and some of the grease. This digestive or septic process releases a smelly gas similar to rotten eggs that moves back through the sewer pipes and is discharged by a vent through the roof of the house. If the vent is blocked or a trap in the home dries out, these gases can be released in the home and can be life threatening.

### **Why Do the Lids Need to be Above Grade?**

**It is state law. Also for inspection and pumping purposes and to clean the filter. Make sure lids are tightly secured at all times so they do not warp or allow children or pets access to the tank.**